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PATENT

Applicants:	John H. Hiett	Client Ref.:	A62-25262-US
Serial No.:	09/224,214	Docket No.:	46180.7800
Filing Date:	December 30, 1998	Group Art:	2654
Title:	APPARATUS AND METHOD FOR DATA COMMUNICATIONS	Examiner	Brenda H. Pham

RESPONSE TO OFFICE ACTION

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Office Action dated February 13, 2002, please amend the above
identified application as follows:

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06/06/2002 NHCHEE1 00000003 192814 09284814
001-FC-102 \$4.00 CN

IN THE SPECIFICATION

Please amend the paragraph at page 11, lines 7-21, in the specification as follows:

Information requests are transmitted to the data source 104 by the transmission unit 206
via first communication medium 208. Moreover, the transmission unit 206 may also be
configured as a transceiver to receive data signals from data source 104 through transmission
medium 208 or from various components within transmission medium 208, e.g., an aeronautical
satellite system 310, a VHF ground station 412, or a ground-based LAN 512. Accordingly,
transmission unit 206 may be configured to validate the contents of the information requests
signals sent to the data source 104. In the present embodiment, transmission unit 206 includes

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multiple transmission mechanisms 810 available for transmitting the request to the data source 104, and a selection system 808 for selecting the appropriate transmission mechanism 810. For example, referring now to Figure 8, the transmission unit 206 suitably comprises a selection system 808 and multiple transmission mechanisms 810, such as a satellite transmitter unit 602, a VHF radio unit 406, wireless LAN unit 506, and/or voice channel unit 812. Similarly, first communication medium 208 also suitably includes multiple media corresponding to the various transmission mechanisms, i.e., satellite, VHF radio, wireless, voice and/or direct cable or laser signals.

IN THE CLAIMS

Please cancel claims 2, 4, 5, 11 and 12 without prejudice or disclaimer. Please amend claims 1, 3, 6, 7, 8, 9 and 10 as follows:

1. (Amended) A data communications system for retrieving data information, said data communications system comprising:

a data source comprising a network system for the storage and delivery of the data information;

an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source wherein said transmission unit comprises a satellite data unit and a radio frequency unit;

a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising:

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an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system; and

a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system;

a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver;

a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source; and

wherein said information request system is configured to select one of said aeronautical satellite system and said radio ground station from said first communication medium for transmission of data information requests.

2. (Amended) A data communications system according to claim 1, wherein said network system comprises a direct broadcasting system.

3. (Amended) A data communications system according to claim 1, wherein said information request system further comprises a wireless LAN unit and said first communication medium further comprises:

a LAN ground station adapted to receive information request signals from said wireless LAN unit, wherein said LAN ground station is adapted to transmit data information requests

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from said wireless LAN unit to said network system, and said network system is adapted to transfer information requests signals to said data source.

4x. (Amended) A method for providing and controlling data communications from a direct broadcast system to a passenger carrier, said method comprising the steps of:

transmitting data information requests from an information request system to a ground station, said transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of a satellite data unit and a radio frequency unit;

transmitting the data information requests from said ground station to said direct broadcast system through a network system;

accessing data information corresponding to the data information request from said direct broadcast system;

24 Cont. transmitting the data information from said direct broadcast system to a direct broadcast satellite; and

broadcasting the data information from said direct broadcast satellite to a receiver provided onboard said passenger carrier.

5-8. (Amended) A method according to claim 4, wherein said step of transmitting data information requests from said information request system to said ground station comprises:

transmitting the data information requests from said satellite data unit to an aeronautical satellite system utilizing said satellite transmission signals; and

transmitting the data information requests from said aeronautical satellite system to said ground station using said satellite transmission signals.

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6. (Amended) A method according to claim 7, wherein said step of transmitting data information requests from said information request system to said ground station comprises:

selecting one of a group of transmission mediums comprising an aeronautical satellite system, a radio frequency system, a wireless LAN system and a voice channel system for transmission of the data information requests.

7. (Amended) A data communications system for a passenger carrier, said system comprising:

a transmission unit comprising a satellite data unit and a radio frequency unit, located on board said passenger carrier and operatively connected to a user interface, said transmission unit being configured to select one of said satellite data unit and said radio frequency unit for transmission of the information request signals, said satellite frequency unit configured for providing satellite transmission signals to an aeronautical satellite system, said aeronautical satellite system being adapted to provide the information request signals to said ground station, and said radio frequency unit for providing radio transmission signals to said ground station, wherein said ground station is adapted to receive the radio transmission signals and transmit said signals to said ground network;

a ground station for receiving information request signals from said transmission unit;

a direct broadcast system for providing data information;

a ground network for linking said ground station and said direct broadcast system to facilitate communications;

a direct broadcast satellite, said direct broadcast satellite adapted to interface and communicate with said direct broadcast system; and

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cont. a receiver located onboard said passenger carrier and adapted to receive data signals broadcast from said direct broadcast satellite, said receiver being operatively connected to said user interface to facilitate the transmission of said data information from said direct broadcast system to passengers.

Please add the following new claims:

825. (New) A data communications system according to claim 10, wherein said transmission unit further comprises a wireless LAN unit, said transmission unit being configured to select one of said satellite data unit, said radio frequency unit and said wireless LAN unit for transmission of the information request signals.

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14. (New) A data communications system according to claim 10, wherein said transmission unit further comprises a high power amplifier, a di-plexor low-noise amplifier, and a phased-array antenna, wherein said amplifiers are configured to facilitate transmission of information request signals from said satellite data unit to said phased-array antenna, and said phased-array antenna being configured to transmit the information request signals to said ground station.

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15. (New) A data communications system for retrieving data information, said data communications system comprising:

a data source comprising a network system for the storage and delivery of the data information;

an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source, wherein said transmission unit comprises a satellite data unit, a radio frequency unit, and a wireless LAN unit;

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a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising:

an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system; and

a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system; and

a LAN ground station adapted to receive information request signals from said wireless LAN unit, wherein said LAN ground station is adapted to transmit data information requests from said wireless LAN unit to said network system, and said

network system is adapted to transfer information requests signals to said data source; a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver;

a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source; and

wherein said information request system is configured to select one of said aeronautical satellite system, said radio ground station and said LAN ground station from said first communication medium for transmission of data information requests.

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~~16~~. (New) A data communications system according to claim ¹⁰~~16~~, wherein said information request system comprises a selection system configured to select one of said aeronautical satellite system, said radio ground station and said LAN ground station from said communication mediums for transmission of data information requests to said data source.

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~~17~~. (New) A data communications system according to claim ¹⁰~~15~~, wherein said transmission unit further comprises:

^{Q5}
~~D16~~ a high power amplifier;

a di-plexor low-noise amplifier; and

a phased-array antenna, wherein said high power amplifier and said di-plexor low-noise amplifier are configured to facilitate transmission of requests signals from said satellite data unit to said phased-array antenna, and said phased-array antenna being configured to transmit the request signals to said data source through said first communication medium.

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REMARKS

In the February 13, 2002, Office Action, the Examiner rejected claims 1-12 pending in the application. This Response cancels claims 2, 4, 5, 11 and 12, without prejudice or disclaimer, amends claims 1, 3, 6-10, and presents new claims 13-17 for consideration. Applicant notes the Draft person's objections to the drawings, and plans to submit corrected, formal drawings upon receipt of a Notice of Allowance. After entry of the foregoing amendments, claims 1, 3, 6-10, and 13-17 (3 independent claims; 12 total claims) remain pending in the application. Reconsideration is respectfully requested.

Claims 1-12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Leuca et al., U.S. Patent No. 6,201,797, issued March 13, 2001 (hereinafter "Leuca"). In light of the amendments to claim 1, Applicant respectfully traverses this rejection.

Leuca generally discloses a method and a communications system in which a request for data transmitted by an airborne transmitter over a low-bandwidth air-to-ground communication system uplink and received by a ground-based receiver. The requested data is then transmitted over a high-bandwidth communication system downlink, such as a DBS satellite system downlink, preferably using an MPEG-2 compression technique, and received by an airborne receiver located on the same aircraft as the airborne transmitter. The received request for data is transmitted to a data network that contains the requested data, such as the Internet or a private data network, using circuit-switched techniques. According to Leuca, the requested data includes one of video information, audio information and textual information.

In contrast to Leuca, Applicant's amended independent claim 1 recites a data communications system for retrieving data information, said data communications system comprising a data source comprising a network system for the storage and delivery of the data.

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information, an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source wherein said transmission unit comprises a satellite data unit and a radio frequency unit, a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system, and a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system, a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver, a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source, and wherein said information request system is configured to select one of said aeronautical satellite system and said radio ground station from said first communication medium for transmission of data information requests. Support for the amendment to claim 1 can be found in the originally filed claims 2, 4 and 5, and in the originally filed specification. No new matter has been introduced.

Leuca does not disclose, teach or suggest various elements of claim 1. For example, Leuca fails to disclose, teach or suggest a first communication medium having both an aeronautical satellite system and a radio ground station, a second communication medium

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comprising a direct satellite is adapted to receive data information and to broadcast data information to said receiver, or wherein the information request system is configured to select one said aeronautical system and said radio ground station from said first communication medium.

While the Examiner acknowledges that Leuca does not teach an information request system further comprising a radio frequency unit, the Examiner contends that the radio frequency unit is inherently included within the aircraft 40 of Leuca. Applicant's counsel has reviewed Leuca and it is not apparent where any such information request system of Leuca comprises a transmission unit, let alone one comprising a satellite data unit and a radio frequency unit (claim 1), and a LAN unit (claim 6). Applicant respectfully submits that it is improper for the Examiner to contend that particular features are inherent properties within the prior art which are not demonstrated by the prior art, *i.e.*, arguments based on inherent properties cannot stand when there is no supporting teaching in the prior art. *In re Spormann*, 363 F.2d 444, 150 USPQ449, 452 (CCPA 1966) ("The inherency of an advantage and its obviousness are entirely different questions. That which may inherent is not necessarily known. Obviousness cannot be predicated on what is unknown.")

For the above reasons, Applicant submits that each and every element of independent claim 1 is not disclosed, taught or suggested by Leuca. Accordingly, claim 1 (and claims 3 and 6, each of which variously depend from claim 1) is not anticipated by Leuca, and Applicant respectfully requests the withdrawal of the rejection of claims 1, 3 and 6 under 35 U.S.C. § 102.

Furthermore, the invention of claims 1, 3 and 6 would not have been obvious to one skilled in the art having knowledge of Leuca. The Examiner cannot simply pick and choose among the individual elements of Leuca to recreate the claimed invention, but instead must look

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for some teaching or suggestion in Leuca to support their particular claim combination. Symbol Technologies, Inc. v. Opticon, Inc., 935 F.2d 1569, 1576 19 USPQ2d 1241 (Fed. Cir. 1991) (citing Smithkline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878, 887, 8 USPQ2d (BAN 1468, 1475 (Fed. Cir. 1988)).

Applicant's amended independent claim 7 recites a method for providing and controlling data communications from a direct broadcast system to a passenger carrier, said method comprising the steps of transmitting data information requests from an information request system to a ground station, said transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of a satellite data unit and a radio frequency unit, transmitting the data information requests from said ground station to said direct broadcast system through a network system, accessing data information corresponding to the data information request from said direct broadcast system, transmitting the data information from said direct broadcast system to a direct broadcast satellite, and broadcasting the data information from said direct broadcast satellite to a receiver provided onboard said passenger carrier. Leuca does not disclose, teach or suggest the transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of the satellite data unit and a radio frequency unit.

Applicant submits that each and every element of independent claim 7 is also not disclosed, taught or suggested by Leuca. Accordingly, claim 7 and claims 8 and 9 (each of which variously depend from claim 7) are not anticipated by Leuca, and Applicant respectfully requests the withdrawal of the rejection of claims 7-9 under 35 U.S.C. § 102.

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Claim 9 is also independently patentable over Leuca in that claim 9 further recites the step of selecting one of a group of transmission mediums comprising an aeronautical satellite system, a radio frequency system, a wireless LAN system and a voice channel system for transmission of the data information requests. Each of these elements are simply not disclosed, taught or suggested by Leuca.

Applicant's amended independent claim 10 recites a data communications system for a passenger carrier, said system comprising a transmission unit comprising a satellite data unit and a radio frequency unit, located on board said passenger carrier and operatively connected to a user interface, said transmission unit being configured to select one of said satellite data unit and said radio frequency unit for transmission of the information request signals, said satellite frequency unit configured for providing satellite transmission signals to an aeronautical satellite system, said aeronautical satellite system being adapted to provide the information request signals to said ground station, and said radio frequency unit for providing radio transmission signals to said ground station, wherein said ground station is adapted to receive the radio transmission signals and transmit said signals to said ground network, a ground station for receiving information request signals from said transmission unit, a direct broadcast system for providing data information, a ground network for linking said ground station and said direct broadcast system to facilitate communications, a direct broadcast satellite, said direct broadcast satellite adapted to interface and communicate with said direct broadcast system, and a receiver located onboard said passenger carrier and adapted to receive data signals broadcast from said direct broadcast satellite, said receiver being operatively connected to said user interface to facilitate the transmission of said data information from said direct broadcast system to passengers.

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For reasons similar to those above, Applicant submits that each and every element of independent claim 10 is not disclosed, taught or suggested by Leuca. Accordingly, claim 10 (and claims 13 and 14, each of which variously depend from claim 10) is not anticipated by Leuca, and Applicant respectfully requests the withdrawal of the rejection of claim 10 under 35 U.S.C. § 102.

In addition to the above reasons, claim 14 is not taught or suggested by Leuca for at least one other independent reason. For example, claim 14 further recites that said transmission unit "further comprises a high power amplifier, a di-plexor low-noise amplifier, and a phased-array antenna, wherein said amplifiers are configured to facilitate transmission of information request signals from said satellite data unit to said phased-array antenna, and said phased-array antenna being configured to transmit the information request signals to said ground station." These elements are simply not disclosed, taught or suggested by Leuca. Accordingly, claim 14 is independently allowable under § 102.

Applicant has also added new claims 15-17 which are believed to be allowable for the reasons set forth above with respect to Leuca.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned "Version with Markings to Show Changes Made."

In view of the foregoing, Applicant respectfully submits that all the pending claims fully comply with 35 U.S.C. 112 and are allowable over the prior art of record. Reconsideration of the application and allowance of all pending claims is earnestly solicited. Should the Examiner wish to discuss any of the above in greater detail or deem that further amendments should be made to

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improve the form of the claims, then the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

Dated: 5/13/02

By: R. Lee Fraley

R. Lee Fraley
Reg. No. 42,550

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please amend the paragraph at page 11, lines 7-21, in the specification as follows:

Information requests are transmitted to the data source 104 by the transmission unit 206 via first communication medium 208. Moreover, the transmission unit 206 may also be configured as a transceiver to [recieve] receive data signals from data source 104 through transmission medium 208 or from various components within transmission medium 208, e.g., an aeronautical satellite system 310, a VHF ground station 412, or a ground-based LAN 512. Accordingly, transmission unit 206 may be configured to validate the contents of the information requests signals sent to the data source 104. In the present embodiment, transmission unit 206 includes multiple transmission mechanisms 810 available for transmitting the request to the data source 104, and a selection system 808 for selecting the appropriate transmission mechanism 810. For example, referring now to Figure 3, the transmission unit 206 suitably comprises a selection system 808 and multiple transmission mechanisms 810, such as a satellite transmitter unit 602, a VHF radio unit 406, wireless LAN unit 506, and/or voice channel unit 812. Similarly, first communication medium 208 also suitably includes multiple media corresponding to the various transmission mechanisms, i.e., satellite, VHF radio, wireless, voice and/or direct cable or laser signals.

IN THE CLAIMS:

1. (Amended) A data communications system for retrieving data information, said data communications system comprising:

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a data source comprising a network system for the storage and delivery of the data information;

an information request system comprising a transmission unit coupled to said data source and adapted to request the data information from said data source wherein said transmission unit comprises a satellite data unit and a radio frequency unit; [and]

a first communication medium configured for transmission of requests for the data information from the information request system to said data source, said first communication medium comprising:

an aeronautical satellite system and a ground station, wherein said aeronautical satellite system is adapted to transmit data information requests from said satellite data unit to said ground station, said ground station being coupled to said network system to facilitate the transferring of said data information requests to said network system; and
a radio ground station adapted to receive information request signals from said radio frequency unit, wherein said radio ground station is adapted to transmit data information requests from said radio frequency unit to said network system;

a second communication medium comprising a direct broadcast satellite adapted to receive data information from said data source and to broadcast said data information to said receiver;

a receiver coupled to said data source by said second communication medium and adapted to receive the data information requested by said information request system from said data source; and

wherein said information request system is configured to select one of said aeronautical satellite system and said radio ground station from said first communication medium for

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transmission of data information requests.

3. (Amended) A data communications system according to claim [2] 1, wherein said [data source] network system comprises a direct broadcasting system [and said second communication medium comprises a direct broadcast satellite adapted to receive data information from said data source and broadcasting said data information to said receiver].

6. (Amended) A data communications system according to claim [5] 1, wherein said information request system further comprises a wireless LAN unit and said first communication medium further comprises:

a LAN ground station adapted to receive information request signals from said wireless LAN unit, wherein said LAN ground station is adapted to transmit data information requests from said wireless LAN unit to said network system, and said network system is adapted to transfer information requests signals to said data source.

7. (Amended) A method for providing and controlling data communications from a direct broadcast system to a passenger carrier, said method comprising the steps of:

transmitting data information requests from an information request system to a ground station[]; said transmitting of data information requests provided through one of satellite transmission signals and radio transmission signals by way of selection between one of a satellite data unit and a radio frequency unit;

transmitting the data information requests from said ground station to said direct broadcast system through a network system;

accessing data information corresponding to the data information request from said direct broadcast system;

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transmitting the data information from said direct broadcast system to a direct broadcast satellite; and

broadcasting the data information from said direct broadcast satellite to a receiver provided onboard said passenger carrier.

8. (Amended) A method according to claim 7, wherein said step of transmitting data information requests from said information request system to said ground station comprises:

transmitting the data information requests from [a] said satellite data unit to an aeronautical satellite system utilizing said satellite transmission signals; and

transmitting the data information requests from said aeronautical satellite system to said ground station using said satellite transmission signals.

9. (Amended) A method according to claim 7, wherein said step of transmitting data information requests from said information request system to said ground station comprises:

[transmitting the data information requests from a radio frequency unit to said ground station utilizing radio transmission signals.] selecting one of a group of transmission mediums comprising an aeronautical satellite system, a radio frequency system, a wireless LAN system and a voice channel system for transmission of the data information requests.

10. (Amended) A data communications system for a passenger carrier, said system comprising:

a transmission unit comprising a satellite data unit and a radio frequency unit, located on board said passenger carrier and operatively connected to a user interface, said transmission unit being configured to select one of said satellite data unit and said radio frequency unit for transmission of the information request signals, said satellite frequency unit configured for providing satellite transmission signals to an aeronautical satellite system, said aeronautical

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satellite system being adapted to provide the information request signals to said ground station,
and said radio frequency unit for providing radio transmission signals to said ground station,
wherein said ground station is adapted to receive the radio transmission signals and transmit said
signals to said ground network;

a ground station for receiving information request signals from said transmission unit;

a direct broadcast system for providing data information;

a ground network for linking said ground station and said direct broadcast system to
facilitate communications;

a direct broadcast satellite, said direct broadcast satellite adapted to interface and
communicate with said direct broadcast system; and

a receiver located onboard said passenger carrier and adapted to receive data signals
broadcast from said direct broadcast satellite, said receiver being operatively connected to said
user interface to facilitate the transmission of said data information from said direct broadcast
system to passengers.



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CERTIFICATE OF MAILING PURSUANT TO 37 C.F.R. §1.8

I hereby certify that this correspondence and attached documents in response to an Office Action, pursuant to 37 C.F.R. §1.8, are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on:

Date: May 13, 2002

By: J. D. Sullivan

PATENT

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RESPONSE TRANSMITTAL

Technology Center 2600

Applicant(s): John H. Hiett

Client Ref.: A62-25262-US

Serial No.: 09/224,214

Docket No.: 46180.7800

Filing Date: December 30, 1998

Group Art: 2664

Title: APPARATUS AND METHOD FOR
DATA COMMUNICATIONS

Examiner: Brenda H. Pham

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir/Madam:

Attached herewith is a response to an Office Action dated February 13, 2002, in the above-identified application.

FEE CALCULATION, CLAIMS AS AMENDED:

	Claims remaining after amendment		Highest number previously paid for		Present Extra		Additional Fee
Total Effective Claims	12	minus	20	=	x	=	
Independent Claims	3	minus	3	=	x	=	
If amendment enters proper multiple dependent claim(s) into this application for first time (per application)							\$260.00 + N/A

Subtotal:

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Attorney Docket No. 46180.7800
Serial No. 09/224,214

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Fee Calculation: Request for Extension of Time pursuant to
37 C.F.R. §1.136(a)

<input type="checkbox"/>	Response filed within first month after due date - add	\$ 110.00
<input type="checkbox"/>	Response filed within second month after due date - add	\$ 390.00
<input type="checkbox"/>	Response filed within third month after due date - add	\$ 890.00
<input type="checkbox"/>	Response filed within fourth month after due date - add	\$1390.00
<input type="checkbox"/>	Response filed within fifth month after due date - add	\$1890.00
	TOTAL:	

If one of the "small entity" boxes above is checked, enter half (1/2)
of the second subtotal and subtract.

Information Disclosure Statement Pursuant to 37 C.F.R. §§1.97-1.98

N/A


TOTAL ADDITIONAL FEE ENCLOSED:

- ☐ Please charge Deposit Account No. 19-2814 in the amount of \$_____
A duplicate copy of this sheet is attached.
- ☐ Check No. _____ in the amount of \$_____ is attached.

This statement does NOT authorize charge of the issue fee. The Commissioner is hereby authorized to charge any other fee specifically authorized hereafter, or any deficiency in the fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under 37 C.F.R. §§1.16-1.18 (deficiency only) now or hereafter relative to this Application and the resulting Official document under 37 C.F.R. §1.20, or credit any overpayment to Account No. 19-2814 for which purpose a duplicate copy of this sheet is attached.

Respectfully submitted,

By


R. Lee Fraley
Reg. No. 42,550

Dated

5/13/02

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